

REMARKS

New claims 12-19 restore the original dependencies of claims 3-7 and, therefore, should not invoke any Festo-like considerations.

New claim 20 corresponds substantially to claim 1. Therefore, to the extent the rejection of claim 1 under 35 USC 103 for obviousness from the cited Soliman and Grayson, et al. U.S. patent publications might be applied to claim 20, both are traversed on the reconsideration requested.

It is true that there is such a feature as a digital geographical map introduced into a control center of a cellular communications system present in the Soliman patent. However, this feature is not completely equivalent to the map according to the application. It is recited in the application (claim 1) that the map comprises coordinates and characteristics of base stations. It is indicated on page 12 of the English text of the application, top paragraph, that the map includes working frequencies, codes and cellular communications parameters, which are the characteristics of the base stations. The Soliman patent does not state anything concerning the presence of such characteristics in a digital map. The Examiner's assertion (line 3 on page 3 of the Official Action) that "Coverage area of a base station entails base station characteristics" is not justified. Consideration in the Soliman patent is only given to cellular borders. At the same time it should be noted that in particular the presence of characteristics of the base stations on the map makes it possible to achieve a solution of the stated object - to increase the effectiveness of operation of the cellular communications system upon execution of handover and roaming as a result of increasing the carrying capacity, reducing the load on the network interfaces along which service information is transmitted and using freed resources for transmitting the useful load, reducing the amount of equipment and software for cellular communications. Furthermore, the method described in the Soliman patent only relates to a CDMA-hard handoff, while the claimed method is

universal.

The reference on page 3, line 8 of the Official Action to paragraph 16 of the Soliman patent is erroneous - the reference should be to paragraph 15.

Further in that same line of the Official Action, the Examiner refers to Fig. 1 of the Soliman patent and asserts that it follows from this Fig. that data on the position are sent from the mobile station through a base station to the control center. Actually only connections are shown in that Fig. 1, and it is not described in any way how the information is transmitted through these connections.

It is asserted on page 3, line 11 and further in the Official Action that the step of sending a fragment of a digital map to a mobile station is known from the Soliman patent. It is not possible to agree with this assertion. As already indicated, it is not shown in Fig. 1 what information in particular is transmitted through the connections. It only follows from the references to paragraphs 19, 15, 45 that the digital map contains cell borders. It follows from the reference to paragraph 16 that a GPS receiver is disposed on a mobile station. It is not stated anywhere that a fragment of a map is sent to a mobile station. This map fragment according to the Soliman patent is in the control center. But it should be noted that due to sending a fragment of the map to a mobile station, this station may independently determine the transition to another cell. which is necessary in order to resolve the stated object.

On page 4 of the Official Action, line 10 and further, the Examiner contests the novelty of the step of obtaining data to execute handover or roaming at the working station. The reference to paragraph 47 of the Soliman patent is not correct. It is indicated in the application that data for transition to another cell are obtained at the mobile station itself on the basis of determination of its coordinates by means of the GPS system and data on parameters of the base stations (see par. 1.1 of the instant document), obtained from the fragment of the map sent to the mobile station (page 13 of the English text, third paragraph).

It is stated in the Soliman patent that the mobile station measures its own coordinates, but these coordinates are sent to a controller and it is the controller in particular that takes a decision on handoff on the basis of the map which is stored in the controller.

The Examiner asserts that implementation of the step of comparing current coordinates of a mobile station and coordinates of cell borders directly at the mobile station is known from the Grayson patent. However, such a step is not found in this patent. In paragraph 97 on page 6, indicated by the Examiner, it is only stated that coordinates of the mobile station are transmitted in a "satellite access node 1a," and upon achievement of the cell borders, the mobile station only transmits its own coordinates to the base station and the controller, but this cannot be understood to mean that a decision is taken for handover.

Thus, the features:

- the presence of characteristics of base stations in a digital map;
- transmission of a fragment of a digital map to a mobile station (which may be carried out when the channel is not loaded); and
- taking a decision on handover and/or roaming at a mobile station with use of the indicated fragment of a digital map,

are not disclosed in the documents cited by the Examiner.

It is these features in particular that provide for achievement of the stated object. Due to them a significant portion of the operations during handover or roaming are carried out at a mobile station. Wherein the volume of service information sent along the cellular communications system channels is reduced. Consequently, the effectiveness of the system is increased.

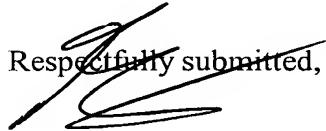
The step of sending a fragment of a map to a mobile station is not disclosed in the documents cited by the Examiner, so the development of this step in claim 3 is even more so novel. Furthermore, in the Hunt patent (paragraph 4) there is nothing written about an

increase of the volume of sent data when there is an increase in the speed of the mobile station. In the Toshimitsu patent (paragraph 132) consideration is only given to the fact that at a higher speed of a mobile station, it crosses the cell borders more often.

Since steps of independent claim 1, a portion of which, as was indicated above, are not present in the cited documents, are used in dependent claims of the application, then the remaining dependent claims are novel.

Nevertheless, it should be noted that the main specificity of the claimed method, distinguishing it from the methods cited by the Examiner, is the transfer of the functions of determination of the location and handover directly to mobile stations, which inform the cellular communications system of its location and independently take a decision on execution of handover and on switching to operation with another base station, taking its characteristics into account.

Thus, the combination of essential features set forth in claims 1 and 20 are not present in any of the documents cited by the Examiner and does not obviously follow therefrom, in spite of the fact that separate steps are used in different known solutions.


Respectfully submitted,

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